

What is claimed is
~~Claims~~

1. A method of inactivating lipid-enveloped viruses in biological or biotechnological products or in cell cultures, characterized in that the products or cell cultures are added with a cyclic lipopeptide, salts or esters thereof, or mixtures of same as inactivating agent, and inactivation is performed at room temperature within from 30 minutes up to 2 hours at maximum, wherein
- a) the agent is added to said products at a concentration of 1-100 μ M when inactivating viruses in the products;
- b) the agent is added to the serum-free culture medium at a concentration of 1-65 μ M, or to the serum-containing culture medium at a concentration of 10-100 μ M, when inactivating viruses in cell cultures.
2. The method of claim 1, characterized in that the virus inactivation in biological or ~~biotechnological~~ ~~or~~ products is performed at temperatures higher than room temperature, ~~preferably 30-60°C~~, within a period of 5-30 min.
3. The method according to claim 1 ~~or 2~~, characterized in that naturally occurring, chemically synthesized lipopeptides, as well as those produced or modified by genetic engineering are used as cyclic lipopeptides.
4. The method according to ^{claim 1} ~~any of claims 1-3~~, characterized in that lipopeptides of general formula I,

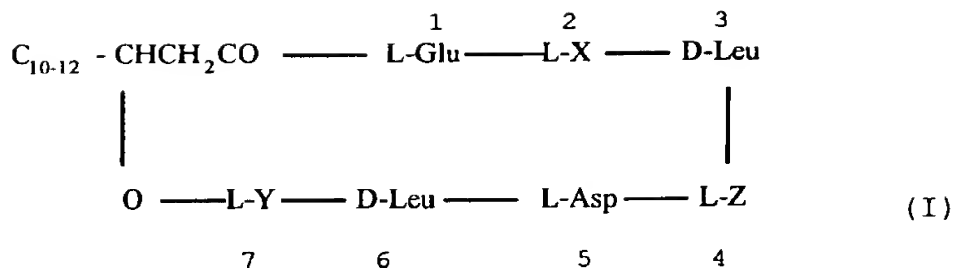
B

SH
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B1

B300
F27

A
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B2

A



the salts, esters or mixtures thereof are used as lipopeptides, in which formula I, X and Y independently represent the amino acids Leu, Ile or Val, Z represents the amino acids Val or Ala, and C₁₀₋₁₂ represents a linear or branched, saturated alkyl chain.

5. The method according to claim 4, characterized in that ^{C₁₀₋₁₂ is a} ~~compounds of general formula I with C₁₁ alkyl or C₁₂ alkyl are used.~~

6. The method according to claim 4 ~~or 5~~, characterized in that esters of the compounds of general formula I, ~~preferably monoesters~~ are employed.

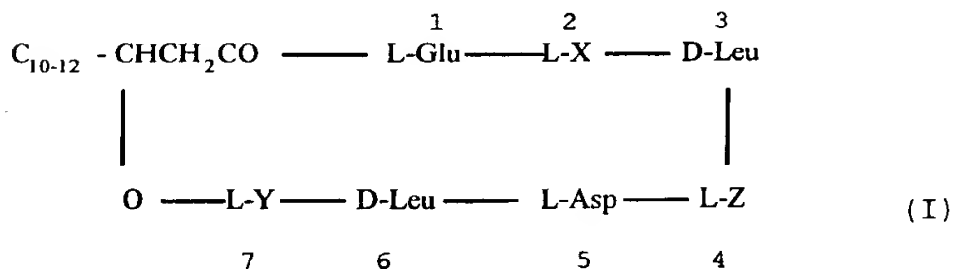
7. The method according to ^{claim 4} ~~any of claims 4-6~~, characterized in that compounds of general formula I are used, wherein X and Y represent Leu, and Z represents Val.

8. The method according to ^{claim 4} ~~any of claims 4-6~~, characterized in that compounds of general formula I are used, wherein X represents Ile or Val.

9. The method according to ^{claim 1} ~~any of claims 1-8~~, characterized in that lipid-enveloped human and ^{non-human} animal viruses are inactivated.

10. The method according to ^{claim 1} ~~any of claims 1-8~~, characterized in that herpes viruses, preferably HSV-1, HSV-2, BHV-1, SHV-1, immunodeficiency viruses, preferably HIV-1, HIV-2, SIV_{agm}, the vesicular stomatitis virus (VSV), and the Semliki-Forest virus (SFV) are inactivated.

11. ~~New lipopeptapeptides~~ of general formula I



and the salts and esters thereof, in which formula I X and Y independently represent Val or Ile, and Z represents Val.

12. Use of the lipopeptides according to claim 11 for inactivating lipid-enveloped viruses in biological or biotechnological products, or in cell cultures.

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B4
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D3